

REMARKS

Claims 16, 19-21, 49 and 58 have been amended to more particularly point out and distinctly claim certain aspects of applicants' invention. Claims 27, and 28 have been canceled. New claims 77-88 have been added. Claims 1-26, 30, 44-61, and 77-88 are now pending. Reconsideration and allowance of all of the claims in view of the above amendments and the following remarks are respectfully requested.

The Examiner is thanked for the allowance of claims 44-48. In addition, dependent claims 4, 5, 9-12, 14, 15, 27, 28, 60, and 61 have been allowed subject to being written in independent form. In this regard, the independent claim 21 has been amended to include the limitation recited in claim 27. Therefore, it is respectfully submitted that amended claim 21 is in condition for allowance.

The Examiner objected to claims 19 and 20 because of informalities. In response, claims 19 and 20 have been amended to indicate a comparison between two areas.

The Examiner rejected claim 16 under 35 U.S.C. Sections 101 and 112. In this regard, claim 16 has been amended to recite that "the flux stabilization ring is made of aluminum" that is used to couple the upper and lower pole pieces together.

Section 103 Rejections and References Cited

The Office Action rejected claims 1-3, 6, and 7 under 35 U.S.C. 103(a) as being obvious in view of PCT/WO 99/48329 and Grodinsky et al., U.S. Patent No. 5,357,587. Applicants respectfully traverse the rejections.

Independent claim 1 recites, in part, "a flux stabilization ring around the upper and lower pole pieces and coupling the upper and lower pole pieces." In other words, the flux stabilization ring not only stabilizes the modulation in the motor, but it also couples the upper and lower pole pieces together. The '329 PCT application discloses one piece cylindrical yoke 12 not two pieces. The '587 Patent discloses using traditional glue to couple the two pole pieces together. See Column 3, lines 50-60. Accordingly, none of the cited references teach using a ring to couple the upper and lower pole pieces together; nor is there any suggestion, teaching or

motivation to combine the ‘48329 PCT application with the ‘587 Patent to couple the two pole pieces using a ring as recited in claim 1. Therefore, claim 1 and its dependent claims 2-20 are allowable over the cited references.

Claims 21-23, 49-51, 58 and 59 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hathaway, U.S. Patent No. 4,295,011 in view of the ‘329 PCT Application. The Examiner’s position is that the tapered end portion of element 16 as shown in Figure 3 of the ‘011 Patent teaches the “pole tip” recited in claim 21. In this regard, claim 21 has been amended to clarify that the upper pole tip has “an enlarged surface” juxtaposed to the top magnetic gap and the lower pole tip has “an enlarged surface” juxtaposed to the bottom magnetic gap. In contrast, the ‘011 Patent discloses forming chamfered surfaces 62 and 64 on the plate 16, which reduces the planner surface area 76 that is juxtaposed to the magnetic gap. In other words, the chamfered surfaces 62 and 64 form surfaces that are away and not juxtaposed to the magnetic gap. Accordingly, independent claim 21 and its dependent claims 22-26, 30, and 86 are in condition for allowance.

With regard to independent claim 49, it has been amended to include the step of “enlarging the surface area in the top and bottom plates juxtaposed to the top and bottom magnetic gaps, respectively.” Again, the ‘011 Patent discloses forming the chamfered surfaces 62 and 64 that are away and not juxtaposed to the magnetic gap. Accordingly, independent claim 49 and its dependent claims 50-57, and 87 are in condition for allowance.

With regard to independent claim 58, it has been amended to include the step of providing “more surface area” at the tip and bottom tips juxtaposed to the respective magnetic gap. Again, the ‘011 Patent discloses forming the chamfered surfaces 62 and 64 that are away and not juxtaposed to the magnetic gap. Accordingly, independent claim 58 and its dependent claims 59-61, and 88 are in condition for allowance.

New Claims

Claims 77-88 have been added by this amendment. No new matter has been added. It is respectfully submitted that the new claims are in condition for allowance. In particular, with regard to claim 77, it recites the limitation of dependent claim 28 rewritten in independent form

including all the limitations of its original base claim 21, which the Examiner allowed. With regard to claim 78, none of the cited references teach or suggest having top and bottom plates with an "extended plate tip" adjacent to the flux return. With regard to independent claim 82, none of the references teach or suggest the step of "fitting the upper and lower pole pieces into a ring to hold the upper and lower pole pieces substantially together."

Conclusion

In view of the foregoing, it is respectfully submitted that the claims in the application patentably distinguish over the cited and applied references and are in condition for allowance. Reexamination and reconsideration of the application, as amended, are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is respectfully requested to call Applicants' undersigned representative at (213) 689-5176 to discuss the steps necessary for placing the application in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1853. Should such additional fees be associated with an extension of time, applicants respectfully requests that this paper be considered a petition therefore.

Respectfully submitted,



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